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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

JAN 17 2006

REPLY TO THE ATTENTION OF

MEMORANDUM

DATE:

SUBJECT: ACTION MEMORANDUM ENFORCEMENT - Determination of Threat to Public Health or the Environment at the Lindsay Light II Site/400 East Illinois/510 North Peshtigo Court fka Kraft Building Property, Parcel K and Parcel 21, Chicago,Cook County, Illinois (Site Spill ID #05YT,Operable Unit 10)

FROM: Verneta Simon, On-Scene Coordinator EJ for
Emergency and Enforcement Response Branch - Section III

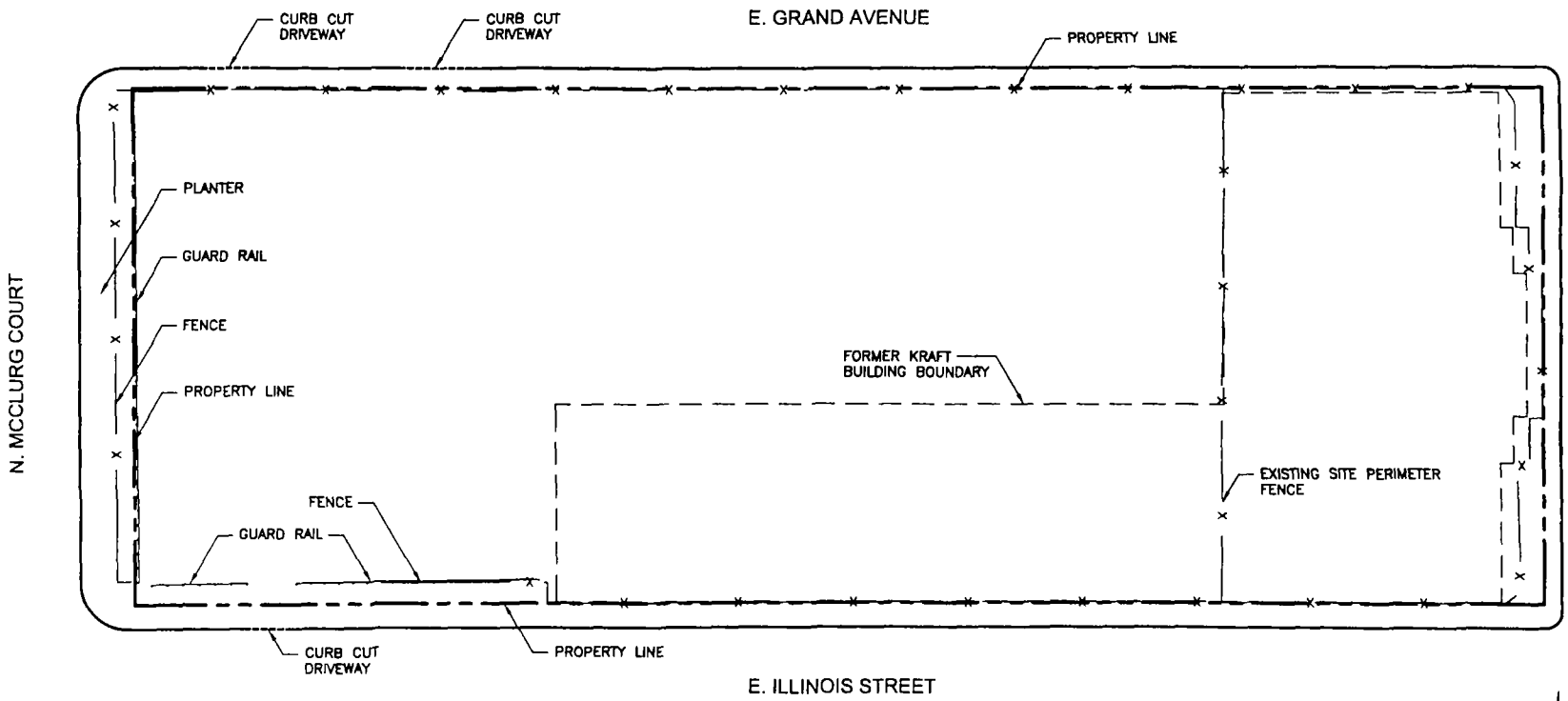
TO: Richard C. Karl, Director
Superfund Division

I. PURPOSE

The purpose of this Memorandum is to document the determination of an imminent and substantial threat to public health and the environment posed by the existence of thorium-impacted soils at 400 East Illinois/510 North Peshtigo Court ("400 East Illinois"). The property at 400 East Illinois was formerly known as the Kraft property. Parcel K, and Parcel 21. Together these adjacent properties comprise the entire block bounded by Illinois Street on the south, McClurg Court on the west, Grand Avenue on the north, and Lake Shore Drive on the east. This property was also divided by Peshtigo Court (See Figure 1).

U.S. EPA and the property owner have identified elevated gamma levels in subsurface soils at Parcel K and Parcel 21. The present owner plans to remove the asphalt from the property on or about January 3, 2005 as part of a plan to erect two buildings on the property. The removal of asphalt and subsequent construction activities will expose the known subsurface radioactive contamination and also may expose any unknown subsurface radioactive contamination thereby creating a potential release of a hazardous substance that may present an imminent and substantial endangerment to human health and the environment.

This Site is not on the National Priorities List (NPL).



LEGEND

- FORMER KRAFT BUILDING BOUNDARY
- EXISTING FENCE
- PROPERTY LINE
- CURB

0 50

1" = 50'

N

STS CONSULTANTS
750 Corporate Woods Pkwy.
Vernon Hills, IL 60061
847-279-2500
www.stsconsultants.com

SITE PLAN

PARCEL K AND PARCEL 21

Drawn	BWS	11/09/2005
Checked	TSJ	11/09/2005
Approved	SAE	11/09/2005
PROJECT NUMBER	1-27313-XC	
FIGURE NUMBER	1	

II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID # ILD 0000002212

Please refer to the previous Lindsay Light II Sites Action Memoranda dated July 11, 1994, October 5, 1995, April 22, 1996, September 22, 1999, March 28, 2000, March 1, 2001, July 17, 2002, and July 18, 2005 for a description of site conditions and background. Action memoranda and administrative records are fully incorporated by reference into this document.

Ownership Background

The current owner of the Kraft Building/Parcel K and Parcel 21 properties is MCL CDC P21, LLC, which took title to the property on February 26, 2004. This entity is an affiliate of MCL Companies. Affiliates of MCL Companies also owned the neighboring 316 East Illinois Lindsay Light removal site which was the subject of a unilateral administrative order that resulted in the removal of approximately 30,000 cubic yards of thorium contaminated material from the Lindsay Light II/316 East Illinois Site (see Lindsay Light II/316 East Illinois Action Memoranda dated July 11, 1994, October 5, 1995, and April 22, 1996).

Prior to March 2003, two other MCL Companies affiliates, Chicago Dock & Canal Trust and River East Land LLC owned the Kraft Building and Parcel K and Parcel 21. In March 2003, Westwacker K-Parcel LLC acquired the Kraft Building Site and Westwacker P21/P24 LLC acquired Parcel 21. Both of the Westwacker entities acquired their respective property interests by deed in lieu of foreclosure.

Radiological Investigation

On September 26, 2000, as part of the Lindsay Light II removal action, U.S. EPA conducted a surface radiological walkover survey of the paved parking lot located on Parcel 21 and portions of Parcel K and the paved North Peshtigo Court located immediately east of these properties. At that time, the Kraft Building, which was erected in 1937, was present on the south side of the property bordering East Illinois Street. U.S. EPA did not radiologically survey the then occupied Kraft Building. During the September 2000 survey, U.S. EPA encountered two locations with elevated gamma readings. The first location was along the centerline of North Peshtigo Court, which is immediately east of the Kraft Building. The other location was on the north side of the west parking lot (towards Grand Avenue). Results from this September 2000 survey were provided to the owner via letter dated December 21, 2000, and are included in the Administrative Record. Action was not taken in 2000 because the areas of contamination were covered by asphalt and the owner planned to maintain the area as a parking lot. U.S. EPA informed the owner that additional investigation was necessary to protect human health and the environment if the asphalt was removed during property development and once development plans were made these two anomalies must be further investigated. In 2003, the MCL affiliate that owned the Kraft Building began to demolish the building. The demolition was halted, however, and in March 2003 the Westwacker entities took title to the property in lieu of foreclosure and completed the demolition. The Westwacker entities also conducted a radiological survey, and created a "park" on the eastern portion of the property. Prior to completing

demolition of the building, Westwacker hired URS Corporation to conduct the radiological survey of the Kraft Building basement. This survey is contained in the Administrative Record.

On July 26 and September 14, 2005, U.S. EPA met with MCL. MCL described its plans to develop a high-rise (Park View West) in two phases on the property known as 400 East Illinois and this will require a below grade parking structure on a portion of the property. On December 5, 2005, U.S. EPA entered into a Lindsay Light II Operable Unit 10 Administrative Settlement Agreement and Order On Consent, docket no. V-W-05-C-834 ("ASAOC") with Respondent MCL CDC P21, L.L.C. ("Respondent") that provides, inter alia, for the radiological investigation and cleanup of the 400 E. Illinois property. Because less than a six-month period exists prior to the initiation of the removal activity, in accordance with Section 300.415 (n) (2) and (I), U.S. EPA will publish notice of availability of the administrative record file which supports this time-critical removal action.

An environmental justice (EJ) analysis was performed for this site and is contained in Attachment 2. In Illinois, the low-income population percentage is 27% and the minority population percentage is 32%. To meet EJ concern criteria, the area within 1 mile of this property must have a population that's twice the state low income percentage or/and twice that state minority percentage. That is, the area must be at least 64% low-income and/or 54% minority. At this site, the low-income percentage is 27% and minority percentage is 32%, as determined by Arcview. Therefore, this site does not meet the region's EJ criteria based on the demographics as identified in "Region 5 Interim Guidelines for Identifying and Addressing a Potential EJ Case, June 1998".

III. THREAT TO PUBLIC HEALTH OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

Conditions at the Lindsay Light II Site/400 East Illinois may pose an imminent and substantial endangerment to public health or welfare or the environment, based upon factors set forth in the National Contingency Plan (NCP), 40 C.F.R. § 300.415(b)(2). These factors include:

a) actual or potential exposure to nearby populations, animals, or the food chain from hazardous substances or pollutants or contaminants: 400 East Illinois is immediately east of the Lindsay Light II Site/316 East Illinois. The Lindsay Light Company processed monazite ores at 316 East Illinois. The 316 East Illinois site was remediated from 1996 until 1999, and resulted in 30,000 cubic yards of thorium-impacted soils being shipped to Envirocare of Utah. West of the Lindsay Light II Site, is the Lindsay Light II/RV3 North Columbus (AKA Grand Pier) Site. Its remediation resulted in 10,000 cubic yards of thorium-impacted soils being shipped to Utah. North of the Lindsay Light II site is the Lindsay Light II/OU3 McClurg Site (AKA Teacher's Retirement System). Its remediation resulted in approximately 6,000 cubic yards of thorium-impacted soils and 5,000 cubic yards of pesticide-impacted soils, and is directly across the street from the Lindsay Light II Site. Therefore, because the 400 E. Illinois property was formerly contiguous to and east of the Lindsay Light II Site, Lindsay Light contamination may also have come to be located on it.

In May 2005, a sample was collected from one anomaly in Parcel 21 identified by U.S. EPA in an earlier surface radiological survey. Analyses for this anomaly is contained in the Administrative Record. In summary, the analyses demonstrated this anomaly was 333.2 picoCuries per gram (pCig/) of total radium (Ra-226 + Ra-228).

Consequently, when the owner removes the asphalt pavement construction laborers, utility workers and the public may be exposed to elevated thorium levels in subsurface soils.

b) high levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate:

As mentioned earlier in Section III, past Action Memoranda corroborate the existence of high levels of thorium in soils near the surface. Specifically, Lindsay Light II/RV3 North Columbus Drive, which was immediately west of the Lindsay Light II site involved excavation of 10,000 cubic yards of thorium-contaminated materials. The 400 East Illinois property is a mirror image of the Lindsay Light II/RV3 North Columbus Drive, since they are both contiguous to the Lindsay Light ore processing parcel and where construction activities exposed high levels of thorium. To date, approximately 50,000 cubic yards have been shipped from the Streeterville area to Envirocare of Utah for off-site disposal.

In approximately 1936, the Lindsay Light Company left Streeterville and moved to West Chicago. U.S. EPA has also been working in West Chicago and discovered approximately over 670 properties impacted by thorium. Similarly, widespread contamination may be present in Streeterville but may be more difficult to detect due to the presence of sidewalks, streets, and buildings that may conceal the presence of buried contamination.

Consequently, when the owner removes the asphalt pavement construction and excavates soils to accommodate construction, thorium contaminated soils may be brought to the surface and may become wind blown or improperly disposed of.

c) other situations or factors which may pose threats to public health or welfare or the environment:

Since the initial removal action at 316 East Illinois in 1996, U.S. EPA has learned more about Lindsay Light's activities in Chicago. For example, The Lindsay Light Company (Lindsay) manufactured, at several locations in the Streeterville neighborhood of Chicago, gas lights and gas mantles for residential and commercial use beginning in approximately 1904. According to a U.S. Tariff Commission document on the Incandescent Gas-Mantle Industry published in 1920, in 1914 Lindsay expanded its thorium manufacturing capacity to meet the increased domestic and foreign demand caused by the outbreak of war in Europe. The production of thorium for the gas light mantles resulted in a sandy waste known as mill tailings that was often used as fill material. The November 1935 Lindsay Board of Director's Meeting minutes discuss plans to move Lindsay's Streeterville operations to the City of West Chicago by September 1936. At the West Chicago facility, which became known as the Rare Earths Facility or REF, Lindsay and its

successors continued to produce thorium as well as other radioactive materials for commercial and defense-related purposes. As a result of Lindsay's Rare Earths Facility thorium manufacturing and disposal activities, four West Chicago areas were listed on the National Priorities List of Superfund sites.

In the West Chicago area, U.S. EPA, with the assistance of the Illinois Emergency Management Agency, Division of Nuclear Safety (IEMA/DNS) (formerly known as the Illinois Department of Nuclear Safety IEMA/DNS), has overseen the clean up of over 670 properties in residential areas, a 100-acre public park, a sewage treatment plant, and beginning in the Spring of 2005, the clean up of over six miles of creek and river in DuPage County. The widespread use of the thorium material as fill in West Chicago likely reflects a similar widespread use of the Lindsay Light thorium residuals in Chicago. Unlike the relatively open areas in the City of West Chicago where the extensive nature of the thorium contamination was relatively easy to identify, most of the Lindsay Light thorium in Chicago was shielded from detection by asphalt, sidewalks, streets and buildings.

As a result of the Lindsay Light thorium waste disposal practices and the technical difficulties in identifying thorium contamination that is concealed by asphalt and pavement, to prevent uncontrolled exposure to the elevated thorium levels, it is necessary to survey and monitor the property for thorium prior to and throughout the construction process.

IV. ENDANGERMENT DETERMINATION

Given the nature of the Site, the nature of the contaminant, i.e., a radioactive material that causes external exposure, inhalation, ingestion, and direct contact hazards, as described in Sections II and III, the actual or threatened releases of hazardous substances from this Site, if not addressed by implementing the response action described in this Action Memorandum, may pose an imminent and substantial endangerment to public health, or welfare, or the environment due to these radioactive materials.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

Pursuant to the ASAOC, the Respondent will fully remediate any thorium soils encountered at the site until maximum protectiveness of human health and the environment is achieved. This will involve at a minimum the following actions.

1) Develop a Work Plan for the radiological assessment of the site.

2) Develop and implement a site health and safety plan.

3) Develop and implement an air monitoring plan.

4) Develop and implement site security measures.

5) Conduct land surveying to the extent necessary to establish a grid system to locate all property boundaries, special features (pipes, storage tanks, etc.), and sample locations.

6) Place borings in critical locations (grid corners, high exposure rate areas, special features, etc.) for the purpose of measuring subsurface radiation levels. Measurements shall be recorded at each 6 inch depth until the natural soils are reached or radiation levels reach background, whichever is the greatest depth.

7) Collect soil samples from the borings and analyze for radionuclide content and RCRA characteristics. These results will then be used by the Respondent to correlate subsurface radiation levels and radionuclide content, and to determine the disposal facility.

8) Conduct off-site radiological surveying and sampling as necessary and, at a minimum implement 40 C.F.R. 192 if deemed necessary should contamination be discovered within the sidewalk rights-of-ways surrounding the property beyond current site boundaries.

9) Based upon soil results, remove, transport and dispose of all characterized or identified hazardous substances, pollutants, wastes or contaminants at a RCRA/CERCLA approved disposal facility in accordance with the U.S. EPA off-site rule.

10) The soil clean-up criterion is 7.1 picoCuries per gram (pCi/g) total radium (Ra-226 + Ra-228) including background, unless analyses indicates the existence of additional contaminants, hazardous substances, pollutants or waste.

11) If any portion of the Site is not radiologically surveyed in 18-inch lifts or if any known contamination will remain after completion of the Work then Respondent shall identify and depict all locations at the Site that were not radiologically surveyed in 18-inch lifts or where any known contamination will remain after completion of the Work and shall implement U.S. EPA-approved deed restrictions or other U.S. EPA-approved institutional controls pertaining to the Site.

The OSC has begun planning for the provision of post-removal site control, consistent with the provisions of Section 300.415(k) of the NCP. However, the nature of future response actions should eliminate most exposure threats, which should minimize the need for post-removal site control except as described in the preceding paragraph 11.

The response actions described in this memorandum directly address actual or threatened releases of hazardous substances, pollutants or contaminants at the facility which may pose an imminent and substantial endangerment to public health and safety, and to the environment. These response actions do not impose a burden on the affected property disproportionate to the extent to which that property contributes to the conditions being addressed.

Applicable or Relevant and Appropriate Requirements (ARARS)

All applicable or relevant and appropriate requirements (ARARS) of Federal law will be complied with to the extent practicable. The primary federal Applicable or Relevant and Appropriate Regulation for radioactive soil cleanup criteria is Title 40, Part 192 of the Code of Federal Regulations, "Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings." Ancillary ARARs include the Nuclear Regulatory Commissions's (NRC) Title 10, Part 20, of the Code of Federal Regulations, "Standards for Protection Against Radiation," NRC Regulatory Guide 1.86,"Termination of Operating License for Nuclear Reactors," and the Department of Transportation's Title 49 for shipping hazardous materials. Relevant U.S. EPA guidance includes OSWER Directive No. 9200.4-25, issued February 12, 1998, regarding the "Use of Soil Cleanup Criteria in 40 C.F.R. Part 192 as Remediation Goals for CERCLA Sites."

Many of the regulations carried out by the NRC have been delegated to the Illinois Emergency Management Agency, Division of Nuclear Safety. The State has previously identified the regulations at 32 Ill. Admin. Code 332, Licensing Requirements for Source Material Milling Facilities which contain the licensing requirements for source material milling facilities in Illinois as relevant and appropriate to the cleanup of thorium in Streeterville. The cleanup standard for soils and sediments at the site derived from the foregoing federal and state regulations is 7.1 pCi/g combined radium.

U.S. EPA will also implement the principle of ALARA (As Low As Reasonably Achievable) which refers to cleanup of all materials above the cleanup standard. ALARA is described in DOE and NRC orders and regulations and in U.S. EPA regulations at 40 C.F.R. § 192.22. U.S. EPA made the decision to achieve ALARA in an attempt to maximize protection of human health.

VI. CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED

Delayed or non-action may result in increased likelihood of external exposure, inhalation, ingestion or direct contact to human populations accessing and working on the site. Also, since there is no threshold for radiological risk, additional exposure to radiological materials will increase the cancer risk.

II. OUTSTANDING POLICY ISSUES

None.

IX. ENFORCEMENT

For administrative purposes, information concerning confidential enforcement strategy for this site is contained in the Enforcement Confidential Addendum.

X. RECOMMENDATION

This decision document represents the selected removal action for the Lindsay Light II Site/Operable Unit 10 located at 400 East Illinois, in Chicago, Illinois, developed in accordance with CERCLA, as amended, and is not inconsistent with the NCP. This decision is based upon the Administrative Record for this site. Conditions at the site meet the NCP Section 300.415(b)(2) criteria for a removal action.

APPROVE: _____
DIRECTOR, SUPERFUND DIVISION

DISAPPROVE: _____
DIRECTOR, SUPERFUND DIVISION

Attachments: Enforcement Confidential Addendum
1. Index to the Administrative Record
2. Environmental Justice Analysis

cc: D. Chung, U.S. EPA, 5203-G
M. Chezik, U. S. Department of Interior, w/o Enf. Addendum
D. Scott, Illinois Environmental Protection Agency, w/o Enf. Addendum
S. Davis, Illinois Department of Natural Resources, w/o Enf. Addendum
B. Everetts, Illinois Environmental Protection Agency, w/o Enf. Addendum
K. Worthington, Chicago Department of Environmental, w/o Enf. Addendum
B. Haller, Chicago Department of Planning and Development, w/o Enf. Addendum

ENFORCEMENT CONFIDENTIAL ADDENDUM

LINDSAY LIGHT II SITE/OU-10 FORMER KRAFT BUILDING/PARCEL K & PARCEL 21
CHICAGO, COOK COUNTY, ILLINOIS
DECEMBER 19, 2005

(REDACTED 2 PAGES)

ENFORCEMENT CONFIDENTIAL
NOT SUBJECT TO DISCOVERY

ATTACHMENT 1

U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL ACTION

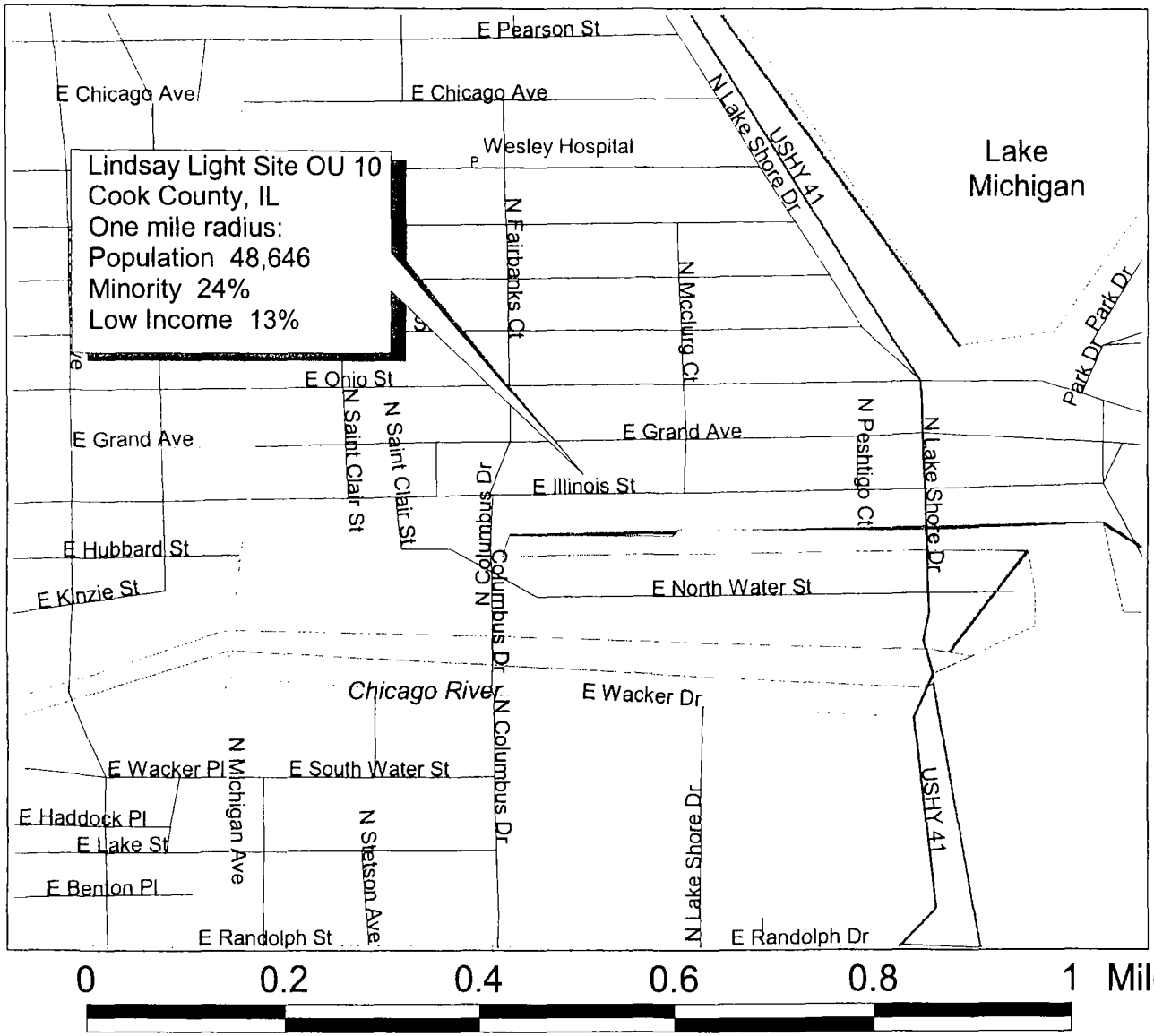
ADMINISTRATIVE RECORD
FOR
LINDSAY LIGHT II SITE/400 EAST ILLINOIS/510 NORTH PESHTIGO COURT FKA KRAFT BUILDING PROPERTY, PARCEL K AND PARCEL 21, OPERABLE UNIT 10
CHICAGO, COOK COUNTY, ILLINOIS

ORIGINAL
DECEMBER 21, 2005

NO.	DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
1	12/21/00	Simon, V., U.S. EPA	Augustyn, K., U.S. EPA	Letter re: U.S. EPA's Radiation Walkover Survey of Parking Lots East, North and West of the Kraft Building	3
2	12/05/05	Fulghum, M., U.S. EPA	Oleszkiewicz, V., *Duane Morris LLP*	Letter re: Transmittal of Administrative Settlement Agreement and Order on Consent for Removal Action at the Lindsay Light II Site Operable Unit 10	38
3	12/16/05	Simon, V., U.S. EPA	Kornder, S., STS Consultants	Letter re: U.S. EPA's Confirmation of December 5, 2005 Verbal Approval of Work Plan	1
4	00/00/00	Simon, V., U.S. EPA	Karl, R., U.S. EPA	Action Memorandum Enforcement: Determination of Threat to Public Health or the Environment at the Lindsay Light II Site/400 East Illinois/510 North Peshtigo Court fka Kraft Building Property, Parcel K and Parcel 21, Operable Unit 10 **(PENDING)**	

Region 5 Superfund EJ Analysis

Lindsay Light Site OU 10 Chicago, IL



State of Illinois averages:
Minority: 32%
Low Income: 27%

U.S. EPA Region 5
Environmental Justice Case Criteria
for State of Illinois

Minority: 64% or greater

Low Income: 54% or greater

Date of Map: 8/9/05

Source of Map: Census 2000 Database/
ArcView 3.0